



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2019-0249; Product Identifier 2019-NM-010-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2017-25-12, which applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. AD 2017-25-12 requires repetitive inspections for cracking of the webs of the stub beams at certain fuselage stations, and applicable on-condition actions. Since we issued AD 2017-25-12, we have received reports of horizontal cracking in the station (STA) 685 stub beam at the inboard end of the upper chord and the outboard end of the lower chord. AD 2017-25-12 did not require an inspection of the area where the horizontal cracks were found. This proposed AD would require repetitive inspections at certain fuselage stations for cracking of the stub beams, and applicable on-condition actions. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0249.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0249; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Galib Abumeri, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712 4137; phone: 562-627-5324; fax: 562 627 5210; email: [galib.abumeri@faa.gov](mailto:galib.abumeri@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0249; Product Identifier 2019-NM-010-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We issued AD 2017-25-12, Amendment 39-19126 (82 FR 59967, December 18, 2017) (“AD 2017-25-12”), for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. AD 2017-25-12 requires repetitive inspections for cracking of the webs of the stub beams at certain fuselage stations, and applicable on-condition actions. AD 2017-25-12 resulted from reports of cracking in the webs of the stub beams at certain fuselage stations. These cracks are a result of fatigue caused by cyclical loading from pressurization, wing loads, and landing loads. We issued AD 2017-25-12 to address cracking in the webs of the stub beams at certain fuselage stations, which, if not corrected, could result in the loss of structural integrity of the airframe during flight, collapse of the main landing gear, and failure of the pressure deck.

### **Actions Since AD 2017-25-12 Was Issued**

Since we issued AD 2017-25-12, we have received reports of horizontal cracking in the STA 685 stub beam at the inboard end of the upper chord and the outboard end of the lower chord. These cracks were caused by overload of the stub beams, leading to ductile separation. Cracks have occurred in the stub beam webs at STA 685 on the left and right sides of airplanes having total flight cycles ranging between 11,167 and 45,892 at the time of the crack finding. If left undetected, such cracking could lead to the loss of structural integrity of the airframe during flight, collapse of the main landing gear, and possible failure of the pressure deck. AD 2017-25-12 did not require an inspection of the area where the horizontal cracks were found.

### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018. The service information describes procedures for inspections at certain fuselage stations for cracking of the stub beams (which includes the web, upper chord, and lower chord), and applicable on-condition actions. The inspections include high frequency eddy current (HFEC) and detailed inspections for cracking of the fuselage stub beam webs below the passenger floor at STA 685, STA 695, and STA 706, general visual inspections for any existing repair in the STA 685 and STA 706 stub beam webs and HFEC inspections for cracking in repaired areas. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## **Proposed AD Requirements**

This proposed AD would retain none of the requirements of AD 2017-25-12. This proposed AD would require accomplishment of the actions identified as “RC” (required for compliance) in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018, described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0249.

## **Costs of Compliance**

We estimate that this proposed AD affects 171 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

### **Estimated costs for required actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	Up to 13 work-hours X \$85 per hour = \$1,105 per inspection cycle	\$0	\$1,105 per inspection cycle	\$188,955 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) AD 2017-25-12, Amendment 39-19126 (82 FR 59967, December 18, 2017), and adding the following new AD:

**The Boeing Company:** Docket No. FAA-2019-0249; Product Identifier 2019-NM-010AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces 2017-25-12, Amendment 39-19126 (82 FR 59967, December 18, 2017) (“AD 2017-25-12”).

#### **(c) Applicability**

This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of cracking in the webs of the stub beams at certain fuselage stations, and cracking of the stub beam at fuselage station 685 at the inboard end of the upper chord and the outboard end of the lower chord. We are issuing this AD to address such cracking, which, if not corrected, could result in the loss of structural integrity of the airframe during flight, collapse of the main landing gear, and failure of the pressure deck.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions for Group 1 Airplanes**

For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018, within 120 days after the effective date of this AD, inspect the stub beams and stub beam webs for any cracking or existing repairs, and do all applicable on-condition actions, using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(h) Required Actions for Groups 2 Through 6 Airplanes**

Except as specified by paragraph (i) of this AD: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018.

**(i) Exceptions to Service Information Specifications**

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018, uses the phrase “the revision 1 issue date of this service bulletin,” this AD requires using “the effective date of this AD,” except where Boeing Alert Service Bulletin



737-53A1364, Revision 1, dated October 25, 2018, uses the phrase “the original issue date of this service bulletin” in a note or flag note.

(2) Where Boeing Alert Service Bulletin 737-53A1364, Revision 1, dated October 25, 2018, specifies contacting Boeing for repair instructions: This AD requires doing the repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as specified by paragraph (i) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(4)(i) and (j)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

**(k) Related Information**

(1) For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: galib.abumeri@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110 SK57, Seal Beach, CA 90740 5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on April 10, 2019.

Michael J. Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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